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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,629	12/04/2001	Chun-Yu Lin	U 013755-6	6738

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EXAMINER

CARTER, AARON W

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,629

Applicant(s)

LIN ET AL.

Examiner

Aaron W Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 2, line 9, in the summary section of the specification the word “dimentional” appears to be missed spelled, it should be spelled “dimensional”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,714,670 to Goldsworthy et al. (“Goldsworthy”).

As to claim 1, Goldsworthy discloses a method for measuring multi-segment LED modules, comprising the following steps:

Photographing images of the multi-segment LED modules (column 5, lines 45-47 and column 6, lines 13-14, wherein elements may be LEDs which corresponds to multi-segment LEDs, see also Fig. 2);

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Locating lighting segments of the photographed images of the multi-segment LED modules by an image vector location algorithm (column 6, lines 17-18 and 23-24, wherein know image processing techniques can be used to locate elements of the LEDs corresponding to an image vector location algorithm); and

Analyzing whether the photographed multi-segment LED modules are defective (column 5, lines 34-38, wherein display inspection corresponds to determining whether or not a display contains defects or flaws).

As to claim 6, please refer to rejections made for claim 1 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldsworthy in view of USPN 6,167,146 to Rogers et al. ("Rogers").

As to claim 2, Goldsworthy discloses the method of claim 1.

Goldsworthy does not disclose expressly wherein the image vector location algorithm comprises the following steps of segmenting an image, clustering segments and

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determining a segment coordinate. Goldsworthy does however disclose that know image analysis techniques maybe employed.

However Rogers discloses an image vector location algorithm comprising the following steps:

Segmenting the photographed image and linking pixels belonging to an individual segment (column 6, lines 30-47);

Clustering segments belonging to an individual multi-segment LED (column 8, lines 36-43); and

Locating every segment and obtaining its corresponding coordinate (column 8, line 43).

Goldsworthy & Rogers are combinable because they are from the same field of image analysis.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the feature locator disclosed by Rogers with the inspection process disclosed by Goldsworthy.

The suggestion/motivation for doing so would have been that the feature locator of Rogers provides optimized feature detection (Abstract, lines 14-17).

Therefore, it would have been obvious to combine Goldsworthy with Rogers to obtain the invention as specified in claim 2.

As to claim 3, the combination of Goldsworthy and Rogers discloses the method of claim 2, Rogers further discloses wherein the photographed images are segmented by a region growing algorithm (column 6, line 30).

As to claim 7, please refer to the rejections made for claims 2 above.

Allowable Subject Matter

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,608,929 to Shiratani discloses region growing and clustering.

USPN 6,683,974 to Nagasawa et al. discloses display inspection.

USPN 6,177,955 to Downen et al. discloses display inspection.

USPN 5,917,957 to Ichikawa discloses display inspection.

USPN 5,650,844 to Aoki et al. discloses display inspection.

USPN 5,504,438 to Henley discloses display inspection.

USPN 4,893,925 to Sweeney et al. discloses display inspection.

USPN 5,793,221 to Aoki discloses display inspection.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W Carter whose telephone number is (703) 306-4060. The examiner can normally be reached on 7am - 3:30 am (Mon. - Fri.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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